Editorial

Ramsar Convention: A tool for wise use of wetlands

Wetlands are transitional areas between aquatic and terrestrial ecosystems where the water table is usually at or near the surface, or the land is covered under shallow water. Wetlands include marshes, swamps, flood plains, bogs, peat lands, shallow ponds, littoral zones of larger water bodies, and tidal marshes. Wetlands are very diverse, but they all share one fundamental feature: the complex interaction of their basic components — soil, water, animals and plants — that fulfil many functions and provide many products that have sustained humans over the centuries (Wetlands International 2002). Of course, not every wetland performs all these functions, but most do.

In India, wetlands are distributed in all the biogeographic regions and exhibit significant ecological diversity, primarily because of the variability in climate, geology, habitat and topography. Wetlands provide a multitude of services, including water purification and regulation of flows, fisheries, habitats for plants, animals and micro-organisms, opportunities for recreation and tourism, and so forth (Wetlands International 2002).

The Ramsar Convention came into force in 1975; there are 157 Contracting Parties. In all, 1,704 wetland sites have been designated as Ramsar sites, with a total area of 152 million hectares (www.ramsar.org). India became a Contracting Party to the Convention in October 1981, and designated the Chilika Lake (Orissa) and the Keoladeo National Park (Rajasthan) as its first two Ramsar sites. Four additional sites were designated in 1990: Sambhar Lake (Rajasthan), Loktak Lake (Manipur), Harike Lake (Punjab), and Wular Lake (Jammu & Kashmir). In 2000, the Ministry of Environment and Forests, Government of India, identified 13 new wetlands and designated them as Ramsar sites. The decision came in the wake of the announcement by the Government at the 7th Conference of the Parties to the Ramsar Convention (COP7) held at San Jose (Costa Rica) in May 1999. In 2005, six more sites were designated as Ramsar Sites. At present, 25 wetlands have been designated as Ramsar sites in India. However, these 25 Ramsar sites do not represent even a fraction of the diversity of wetland habitats existing in the country.

In India, the Ministry of Environment & Forests (MoEF) is the nodal agency for implementing the conservation programme on wetlands, mangroves and coral reefs. Started in the 1980s, the programme is guided by a National Committee on Wetlands, Mangroves and Coral Reefs, constituted to advise the government on appropriate policies and programmes for the conservation of these ecosystems, to suggest specific sites for conservation action, and to identify research and training priorities. Several wetland sites in the country have been selected on a priority basis for conservation and management action, financial support for which is being extended by the Ministry (MoEF 2001).

Ten biogeographic zones have been identified in India: Trans-Himalaya, Himalaya, Semi-arid, Desert, Gangetic Plain, Deccan, Western Ghats, North-east, Coasts and Islands (Rodgers and Panwar 1988). The wetlands in the Trans-Himalaya are extremely important for the protection of birds, especially for globally threatened species such as the Black-necked Crane *Grus nigricollis*.

Some of the important high altitude lakes such as Tso Kar, Tsomoriri, Pangong Tso, and marshes such as Hanley, Phoktsey and Chushul, are located in this region; most of them have been identified as IBAs and potential Ramsar Sites.

The Gangetic Plain is one of the most fertile regions of the world, with a nearly 3,000 year history of human occupation. This region is famous for its flood plain wetlands — results of copious rainfall in the Gangetic Plain and also in the Himalaya from where most of the rivers originate. Large areas are annually flooded and when the flood recedes, it leaves low-lying areas under water. These wetlands are extremely productive in terms of vegetation biomass and avian diversity (Howes 1995). Some of the most important wetland IBAs and potential Ramsar Sites are found in this region with significant populations of waterfowl. Sultanpur in Gurgaon, Bhindawas in Rohtak, Patna *jheel* in Etah, Lakh-Bahosi in Farrukhabad, Saman in Mainpuri, Sandi in Hardoi, Kawar in Begusarai and Nawabganj in Unnao, are some of the more spectacular wetlands for migratory waterfowl in winter. The marshes

and wetlands of the Gangetic drainage system show a long history of stability in the geological sense. Thus, a large number of marsh-dependent species are found such as the Striated Marsh Warbler *Megalurus palustris*, Bristled Grassbird *Chaetornis striatus*, Rufous-rumped Grassbird *Graminicola bengalensis*, Yellow-bellied Prinia *Prinia flaviventris*, Swamp Francolin *Francolinus gularis*, Bengal Florican *Houbaropsis bengalensis* and a variety of ducks.

The flood plains of the Brahmaputra and the marshes and swamps in the hills of north-east India and the Himalayan foothills are important for humans and biodiversity. The Brahmaputra Valley, with its high rainfall and numerous rivers provide wintering grounds to large congregations of waterbirds. Most of these waterbirds are migratory while some are resident and breed in this region. The wetlands of this region support a number of threatened species; a number of IBAs and potential Ramsar Sites have been identified in this region.

In the Rann of Kutch in Gujarat, vast saline expanses are found where both Greater *Phoenicopterus roseus* and Lesser *P. minor* flamingos breed when conditions are suitable. The wetlands of the Deccan peninsula support a high proportion of the global population of the Spot-billed Pelican *Pelecanus philippensis*, with many colonies associated with the water storage reservoirs or 'tanks' on the Deccan plateau in southern India. The coastal areas of India perhaps form the most neglected biogeographic zone of India, mainly because they do not have charismatic species such as the Tiger and the Rhinoceros. However, they do have fabulous bird congregations, as seen in the Chilika Lake (IBA and Ramsar Site) and Bhitarkanika (IBA and Ramsar Site) in Orissa, the Point Calimere Wildlife Sanctuary (IBA and Ramsar Site) in Tamil Nadu, the Sunderbans (IBA and Ramsar Site) in West Bengal, the Sewri mudflats (IBA and potential Ramsar Site) in Maharashtra and the Kori Creek in Gujarat.

The existing Ramsar site list of 25 sites in India clearly proves that all the biogeographical regions of India are not properly represented, and some of the potential sites are missing, e.g. many important sites in the Gangetic Plain, North-east, Semi-Arid, Desert and Deccan. Under the Important Bird Areas Programme of the BNHS and BirdLife International we have prepared a list of additional 135 wetlands which are potential Ramsar Sites. This exercise is done objectively taking into consideration IBA and Ramsar criteria. We have identified potential Ramsar Sites mainly based on their biodiversity values, which was the original aim of the Ramsar Convention. We have also tried to cover the whole country and all biogeographic regions and their provinces.

We hope that many of these potential sites will be considered by the Government of India under the Ramsar Convention.

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REFERENCES

Howes, J.R. (1995): Conservation and Sustainable Use of Floodplain Wetlands. Asian Wetland Bureau, Kaula Lumpur, 123 pp. (Proceedings of the Workshop on the Conservation and Sustainable Use of Floodplain Wetlands, December 1993, Calcutta –AWB Publication No. 113).

Ministry of Environment and Forests (2001): State Forest Report 2001. Forest Survey of India, Dehradun.

Rodgers, W.A. & H.S. Panwar (1988) *Planning a Protected Area Network in India*. 2 volumes. Wildlife Institute of India, Dehradun.

Wetlands International (2002): Waterbird Population Estimates: Third Edition. Wetlands International Global Series No. 12, Wageningen, The Netherlands.